

ASOS MODIFICATION NOTE 71 (for Electronics Technicians)

Maintenance Branch

W/OPS12: WDW

SUBJECT : Automated Surface Observing System (ASOS) Stand-alone Operating System (pSOS) Firmware 1.82

PURPOSE : Firmware upgrade for the ASOS Operational Load

EQUIPMENT AFFECTED : ASOS Acquisition Control Unit (ACU)

PARTS REQUIRED : 2 each, S100-1A2A1-U29A

SPECIAL TOOLS REQUIRED : Integrated Circuit (IC) insertion tool (ASN: 041-T-13)
IC extraction tool (ASN: 041-T-16)
Electrostatic discharge straps

MODIFICATION PROCUREMENT : Firmware will be initial issued only by the Maintenance Branch (W/OPS12) to ASOS sites reporting problems associated with the Automated Lightning Detection and Ranging System (ALDARS) data.

EFFECTIVITY : Attachment B

ESTIMATED TIME REQUIRED : 1 Hour

EFFECT ON OTHER INSTRUCTIONS : Appends EHB-11, Section 3.6, Modification Note 47.

AUTHORIZATION : This modification is authorized by Request for Change S01168.

VERIFICATION STATEMENT : This modification has been tested for operational integrity at the sites listed in attachment A.

GENERAL:

This modification note provides procedures to upgrade the ASOS pSOS load from 1.81 to 1.82 by removing and replacing the erasable programmable read-only memory (EPROM) on the ACU central processing unit (CPU) board. This new load will clear up failures (e.g., system lockups and warm starts) related to the ALDARS data. With this new load, high-level data link control (HDLC) data packets containing HDLC protocol or data errors will be ignored by the ASOS.

W/OPS12:BWhisel:713-1833x161

File:K:W/OPS12:ASOS\Asos Temps\Mod71.wpd

updated:11/15/00:spellchecked:11/15/00

PROCEDURE:

The following instructions are for installation of EPROMs U29 and U30 on the ACU CPU boards, 1A2A1 and 1A2A2.

CAUTION

Be careful to protect the electronics on the ACU CPU board during this procedure. Be careful not to reconfigure any jumpers on the ACU CPU board.

1. Inside the ACT cabinet, switch off the uninterruptible power supply (UPS) unit.
2. Remove facility power from the ACT cabinet.
3. Remove the two ACU CPU boards located at 1A2A1, and 1A2A2.
4. Using an IC extraction tool, if available, carefully remove the EPROMs marked U29 and U30 (refer to Figure 1) from their boards and place on 2 static-free surfaces.

NOTE:	If an IC extraction tool is not available, use with extreme caution, a flat-blade screwdriver to pry loose as evenly as possible, the U29 and U30 EPROMs from their boards, and place on a static-free surface.
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5. Install the new EPROMs into their respective sockets on both CPU boards.
6. Reinstall the CPU boards into the ACU cabinet.
7. Return facility power to the ACU cabinet and switch the UPS to on.
8. Once the system is up and running, proceed to the Software Version Page (**REVUE-SITE-VERSN-SW**) and verify the proper versions for all system software.

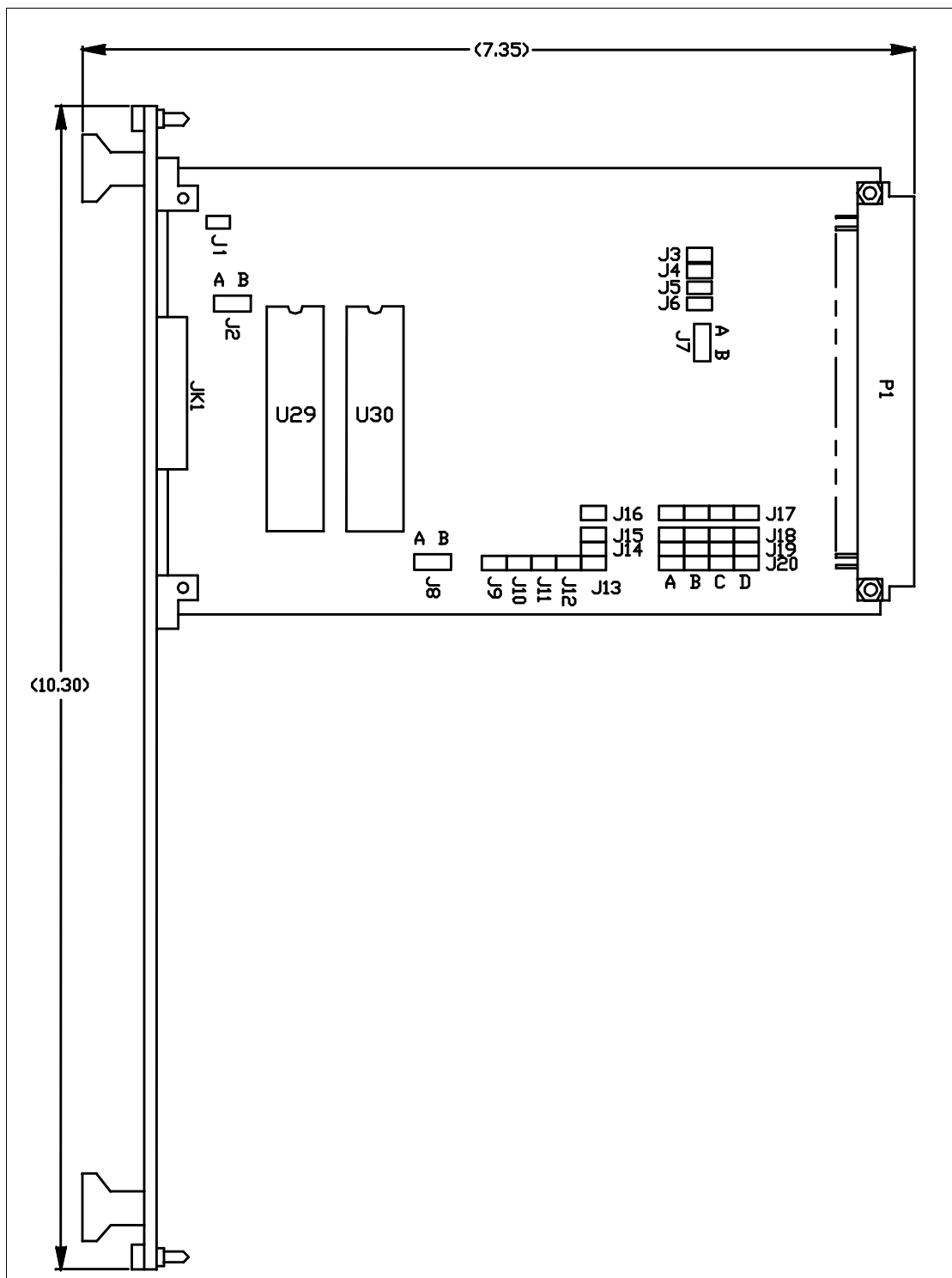


Figure 1 ACU CPU Card

REPORTING INSTRUCTIONS:

Target Date for completion of this modification is 14 days after receipt of parts. Report completed modification on a WS Form A-26, Maintenance Record, using the instructions in Engineering Handbook No. 4 (EHB-4), Engineering Management Reporting System (EMRS), part 2, attachment F.

John McNulty
Chief, Maintenance, Logistics, and Acquisition Division

Attachment A - OT&E Test Sites
Attachment B - Implementation List
Attachment C - WS Form A-26 Sample

Attachment A

OT&E Test Sites		
Site ID	City, State	Region
DEC	Decatur, IL	Central
RKS	Rock Springs, WY	Central
WRL	Worland, WY	Central
ART	Watertown, NY	Eastern
AUG	Augusta, ME	Eastern
PHF	Newport News, VA	Eastern
CKV	Clarksville, TN	Southern
ELD	El Dorado, AR	Southern
HOT	Hot Springs, AR	Southern
PWA	Oklahoma City, OK	Southern
CEC	Crescent City, CA	Western
EAT	Wenatchee, WA	Western
EPH	Ephrata, WA	Western

Attachment B

Implementation List**		
Site ID	City, State	Region
AAO	Wichita, KS	Central
AKO	Akron, CO	Central
AMW	Ames, IA	Central
BBW	Broken Bow, NE	Central
BTL	Battle Creek, MI	Central
CFV	Coffeyville, KS	Central
CGI	Cape Girardeau, MO	Central
CMI	Champaign, IL	Central
CNY	Moab, UT	Central
COU	Columbia, MO	Central
DET	Detroit, MI	Central
EMP	Emporia, KS	Central
FCM	Minneapolis, MN	Central
HLC	Hill City, KS	Central
IML	Imperial, NE	Central
JEF	Jefferson City, MO	Central
JLN	Joplin, MO	Central
MCW	Mason City, IA	Central
MIW	Marshalltown, IA	Central
MTO	Mattoon, IL	Central
ODX	Ord, NE	Central
OTM	Ottumwa, IA	Central
PPF	Parsons, KS	Central
PTK	Pontiac, MI	Central
RSL	Russell, KS	Central
SET	St. Charles, MO	Central

TVC	Traverse City, MI	Central
UIN	Quincy, IL	Central
UNO	West Plains, MO	Central
VEL	Vernal, UT	Central
WLD	Winfield, KS	Central
BML	Berlin, NH	Eastern
CRE	North Myrtle Beach, SC	Eastern
CUB	Columbia, SC	Eastern
DAW	Rochester, NH	Eastern
GFL	Glen Falls, NY	Eastern
HIE	Whitfield, NH	Eastern
IWI	Wiscasset, ME	Eastern
IZG	Freyberg, ME	Eastern
SBY	Salisbury, MD	Eastern
UCA	Utica, NY	Eastern
AEX	Alexandria, LA	Southern
ARA	New Iberia, LA	Southern
CSM	Clinton, OK	Southern
DEQ	De Queen, AR	Southern
GAG	Gage, OK	Southern
HBR	Hobart, OK	Southern
LEE	Leesburg, FL	Southern
MLB	Melbourne, FL	Southern
MSL	Muscle Shoals, AL	Southern
PNC	Ponca City, OK	Southern
VRB	Vero Beach, FL	Southern
ALW	Walla Walla, WA	Western
BHK	Baker, MT	Western
BTM	Butte, MT	Western
CMA	Camarillo, CA	Western

EVW	Evanston, WY	Western
GCN	Grand Canyon, AZ	Western
JER	Jerome, ID	Western
LWT	Lewiston, MT	Western
OLF	Wolf Point, MT	Western
OMK	Omak, WA	Western
PMD	Palmdale, CA	Western
PRC	Prescott, AZ	Western
RDM	Redmond, OR	Western
UKI	Ukiah, CA	Western

** Additional site implementation as required. Coordination with and approval from the National Weather Service Headquarters is required.